



PATENT ABSTRACTS OF JAPAN

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(54) SEMICONDUCTOR MEMORY

(57) Abstract

PROBLEM TO BE SOLVED: To obtain a CAM (content addressable memory) of a high density memory cell structure.

SOLUTION: A memory cell $C_n(i, j)$ forms a non-coincidence detection circuit to detect non-coincidence between stored data of a data holding part comprising inverters I1010 and I2020 and search data obtained from a search line SL_j and a search line SLB_j by N-channel transistors N01, N11, N21 and N31. On the other hand, a memory cell $C_p(i, j+1)$ adjacent row-wise to the memory cell $C_n(i, j)$ forms a non-coincidence detection circuit to detect noncoincidence between stored data of a data holding part comprising inverters I212 and I2222 and a search data obtained from a search line SL_{j+1} and a search line SLB_{j+1} by a P-channel transistor P01, P11, P21 and P31.

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